

Appl. No. : 10/009,792
Filed : December 13, 2001

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A recombinant plasmid vector which comprises:
a kanamycin resistance gene;
a promoter;
a nucleotide sequence coding for an endoxylanase signal sequence;
a nucleotide sequence coding for an oligopeptide consisting of 13 amino acids including 6 consecutive histidine residues; and,
a human granulocyte colony stimulating factor (hG-CSF) gene.
2. (Currently amended) The recombinant plasmid vector of claim 1, wherein the nucleotide sequence codes for an oligopeptide ~~has an~~ which comprises an amino acid sequence of isoleucine-glutamic acid-glycine-arginine (Ile-Glu-Gly-Arg; SEQ ID NO: 28) within the oligopeptide.
3. (Currently amended) A recombinant plasmid vector, pTHKCSFmII represented in Figure 13 which comprises:
a kanamycin resistance gene;
a Trc promoter;
a nucleotide sequence coding for an endoxylanase signal sequence derived from *Bacillus* sp.;
a nucleotide sequence coding for ~~an~~ the oligopeptide of SEQ ID NO: 1, which contains six consecutive histidine residues in the sequence AGPHHHHHH and the protease target sequence IEGR; and
a modified gene coding for a human granulocyte colony stimulating factor (hG-CSF); ~~which includes a nucleotide sequence of SEQ ID NO: 26 at the N terminus.~~
wherein the nucleotide sequences coding for the endoxylanase signal sequence, the oligopeptide of SEQ ID NO: 1 and N-terminal portion of the mature hG-CSF are present in SEQ ID NO: 26.

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4. (Original) A microorganism, *E. coli* transformed with the plasmid vector, pTHKCSFmII of claim 3.
5. (Original) The microorganism of claim 4, wherein the *E. coli* is selected from the group consisting of *E. coli* XL1-Blue, *E. coli* MC4100, *E. coli* BL21 (DE3), *E. coli* HB101 and *E. coli* W3110.
6. (Original) *E. coli* MC4100/pTHKCSFmII (KCTC 0754BP) transformed with the plasmid vector, pTHKCSFmII of claim 3.
7. (Original) A process for preparing a human granulocyte colony stimulating factor, which comprises the steps of:
culturing *E. coli* transformed with the plasmid vector of claim 1 to obtain a human granulocyte colony stimulating factor fusion protein; and,
treating the human granulocyte colony stimulating factor fusion protein with a protease to obtain a human granulocyte colony stimulating factor.
8. (Original) The process for preparing a human granulocyte colony stimulating factor of claim 7, wherein the plasmid vector of claim 1 is pTHKCSFmII.
9. (Original) The process for preparing a human granulocyte colony stimulating factor of claim 7, wherein the human granulocyte colony stimulating factor fusion protein is obtained from the culture by employing Ni-column.
10. (Original) The process for preparing a human granulocyte colony stimulating factor of claim 7, wherein the protease is Factor Xa.